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Om protein - protein search, using sw model

Run on: August 28, 2002, 17:32:26 ; Search time 37.53 Seconds  
 (without alignments)  
 540.230 Million cell updates/sec

Title: US-09-502-984B-6

Perfect score: 1098

Sequence: 1 KFESKAALLAARGPEELLCF . . . . . AEFSFGFWMSAWSEPVSLT 211

Scoring table: BLOSUM62  
 Gapop 10.0 , Gapext 0.5

Searched: 283138 seqs, 9608934 residues

Total number of hits satisfying chosen parameters: 283138

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : PIR 71.1:  
 1: pir1:  
 2: pir2:  
 3: pir3:  
 4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	DB ID	Description
1	1060	96.5	508	ZURUR erythropoietin receptor precursor - human
2	877.5	79.9	507	1 A46713 erythropoietin rec
3	869.5	79.2	265	S14081 erythropoietin rec
4	869.5	79.2	507	1 A33285 erythropoietin rec
5	171	15.6	625	2 S53317 hematopoietic grow
6	164	14.9	626	2 S37622 proto-oncogene - m
7	146	13.3	579	2 B45266 MP1-K protein prec
8	146	13.3	635	2 A5266 protein prec
9	118	10.7	581	10.7 A45971 prolactin receptor
10	111	10.1	522	2 B42268 interleukin-9 rece
11	110.5	10.1	634	2 S33339 somatotropin recep
12	107	9.7	608	S2823 somatotropin recep
13	104	9.5	616	2 A30304 prolactin receptor
14	103.5	9.4	677	2 S33608 somatotropin-bind
15	103.5	9.4	831	JQ1655 prolactin receptor
16	103	9.4	638	2 S12136 somatotropin recep
17	99.5	9.1	638	2 B28176 somatotropin recep
18	98.5	9.0	830	2 I50455 prolactin receptor
19	98	8.9	897	1 A30255 cytokine receptor
20	96.5	8.8	378	2 A40266 interleukin-3 rece
21	94	8.6	468	2 A45268 interleukin-9 rece
22	92.5	8.4	279	2 B32985 somatotropin-bind
23	92.5	8.4	638	2 A33505 somatotropin recep
24	92	8.4	2594	2 A35774 prolactin-related pro
25	91	8.3	292	I77525 prolactin receptor
26	91	8.3	303	2 I77524 prolactin receptor
27	91	8.3	608	2 I53269 prolactin receptor
28	89.5	8.2	467	2 156896 gene gfi-2 protein
29	8.0		B59405	prolactin receptor

ALIGNMENTS

ZURUR erythropoietin receptor precursor - human

C:Species: Homo sapiens (man) #sequence\_revision 05-Apr-1995 #text\_change 22-Jun-1999

C:Accession: A43799; A60160; A99824; A53585; A55280; I52563

R:Jones, S.S.; D'Andrea, A.D.; Haines, L.L.; Wong, G.G.

Blood 76, 31-35, 1990

A:Title: Human erythropoietin receptor: cloning, expression, and biologic characterization

A:Reference number: A43799; MUID:90304340

A:Accession: A43799

A:Molecule type: mRNA

A:Residues: 1-508 <JON>

A:Cross-references: GB: M60459; NID: q182244; PIDN: AAA52403.1; PID: q182245

R:Winkelmann, J.C.; Penny, L.A.; Deaven, L.L.; Forget, B.G.; Jenkins, R.B.

Blood 76, 24-30, 1990

A:Title: The gene for the human erythropoietin receptor: analysis of the coding sequence

A:Reference number: A60160; MUID:90304334

A:Accession: A60160

A>Status: not compared with conceptual translation

A:Molecule type: mRNA; DNA

A:Residues: 1-101, 'R', 103-188, 'RP', 191-243, 'E', 245-508 <WIN>

R:Noguchi, C.T.; Bae, K.S.; Chin, K.; Wada, Y.; Schechter, A.N.; Hankins, W.D.

Blood 78, 2348-2556, 1991

A:Title: Cloning of the human erythropoietin receptor gene.

A:Reference number: A49824; MUID:92399733

A:Accession: A49824

A:Molecule type: DNA

A:Residues: 1-508 <NOG>

A:Cross-references: GI: 54532; NID: 9255496; PIDN: AAB23271.1; PID: 9255497

A:Experimental source: placenta

A:Note: sequence extracted from NCBI backbone (NCBIN:113293, NCBIPI:113294)

R:Ehreman, K.; St. John, T. Exp. Hematol. 19, 973-977, 1991

A:Title: The erythropoietin receptor gene: cloning and identification of multiple transcripts

A:Reference number: A53958; MUID: 91372359

A:Accession: A53958

A:Molecule type: mRNA

A:Residues: 1-508 <EHR>

R:Penny, L.A.; Forget, B.G.

Genomics 11, 974-980, 1991

A:Title: Genomic organization of the human erythropoietin receptor gene.

A:Reference number: A55280; MUID: 92147143

A:Accession: A55280

A:Molecule type: DNA

A:Residues: 1-17, 381-387, 'LIE000DA', 391-395; 504-508 <PEN>

A:Note: sequence modified after extraction from NCBI backbone

A:Note: the authors translated the codon GAT for residue 31 as B

A:Note: an insert compared to other published sequences is considered by authors as 1

R:Maouche, L.; Touamille, C.; Hattab, C.; Boffa, G.; Carton, J.P.; Chretien, S.

Blood 78, 2557-2563, 1991

A:Title: Cloning of the gene encoding the human erythropoietin receptor.

A; Reference number: 152563; MUID:92399734  
A; Accession: 152563  
A; Status: translated from GB/EMBL/DDBJ  
A; Molecule type: DNA  
A; Residues: 1-96 <RES>  
A; Cross-references: GB:M76595; NID:9182147; PIDN:AAA52393\_1; PID:9553281  
C; Genetics:  
A; Gene: GDB:EPOR  
A; Cross-references: GDB:125242; OMIM:133171  
A; Map position: 19p13.3-19q13.2  
A; Introns: 39/1; 84/2; 143/1; 195/3; 247/1; 276/2; 305/3  
C; Superfamily: erythropoietin receptor; cytokine receptor homology  
C; Keywords: alternative splicing; cytokine receptor; glycoprotein; transmembrane protein  
F; 1-24/Domain: signal sequence #status predicted <STG>  
F; 25-508/Product: erythropoietin receptor #status predicted <MAT>  
F; 52-250/Domain: extracellular #status predicted <EXT>  
F; 52-259/Domain: cytokine receptor homology <CRS>  
F; 233-237/Region: WSXWS motif  
F; 251-272/Domain: transmembrane #status predicted <TM>  
F; 273-508/Domain: intracellular #status predicted <INT>  
F; 52-62, 91-107/disulfide bonds: #status predicted  
F; 76/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 79.9%; Score 877.5; DB 1; Length 507;  
Best Local Similarity 78.2%; Pred. No. 2.9e-77;  
Matches 165; Conservative 23; Mismatches 22; Indels 1; Gaps 1;  
Matches 198; Conservative 11; Mismatches 2; Indels 0; Gaps 0;

Qy 1 KFESKAALLAARGPPEELCFTTERLEDLVCFFERASAGVPGNFSSFOLEDEPWKLICRL 60  
Db 34 KFESKAALLAARGPPEELCFTTERLEDLVCFFERASAGVPGNFSSFOLEDEPWKLICRL 92  
Qy 61 HQAPTAGAIRFWCSLPTADTSFVPLRLLTAASGPRFHRYHINENVVLIDAPVGIV 120  
Db 93 HQAPTAGAVFWCSLPTADTSFVPLRLLTAASGPRFHRYHINENVVLIDAPVGIV 152  
Qy 121 RLADESGIVWIRMLPPPTPMWSHIRFIELDISAGNGAGSVQRVELLEGRTCEVLNSLRG 180  
Db 153 RRAGEGSWVLRNLPPGAPMTHIRYEVDVSGRNRAAGTQRVLEGRTECVLSNLRG 212  
Qy 181 TRITIAYVARMAEPSFGFWSAWSEPVSLT 211  
Db 213 TRYFAVRMAMAEPSFGFWSAWSEPVSLT 243

RESULT 3  
SI4081 erythropoietin receptor - mouse  
C; Species: Mus musculus (house mouse)  
C; Date: 18-Feb-1994 #sequence\_revision 10-Nov-1995 #text\_change 23-Jul-1999  
C; Accession: SI4081; I49653  
R; Kuramochi, S.; Ikawa, Y.; Todokoro, K.  
A; Title: Characterization of murine erythropoietin receptor genes.  
A; Reference number: S13249; MUID:91080149  
A; Accession: SI4081  
A; Status: preliminary  
A; Molecule type: DNA  
R; Lacombe, C.; Chretien, S.; Lemarchand, V.; Mayeux, P.; Romeo, P.  
J. Biol. Chem. 266:6952-6956, 1991  
A; Title: Spleen focus-forming virus long terminal repeat insertional activation of the Rous sarcoma virus gene in mice  
A; Reference number: I49653; MUID:91201346  
A; Accession: I49653  
A; Status: preliminary; translated from GB/EMBL/DDBJ  
A; Molecule type: DNA  
A; Residues: 1-24 <RES>  
A; Cross-references: GB:M62360; NID:9193199; PIDN:AAA37582\_1; PID:9193200  
C; Superfamily: erythropoietin receptor; cytokine receptor homology  
C; Keywords: cytokine receptor; transmembrane protein  
F; 52-238/Domain: cytokine receptor homology <CRS>

RESULT 2  
A46713 erythropoietin receptor precursor - rat  
C; Species: Rattus norvegicus (Norway rat)  
C; Date: 10-Sep-1999 #sequence\_revision 16-Jun-2000  
C; Accession: A46713  
J; Matsuda, S.; Nasao, M.; Takahata, K.; Konishi, Y.; Gallyas Jr., F.; Tabira, T.; Sasaki, J.; Biol. Chem. 268:11208-11216, 1993  
A; Title: Functional erythropoietin receptor of the cells with neural characteristics. Co-A; Reference number: A46713; MUID:9326574  
A; Accession: A46713  
A; Status: preliminary  
A; Molecule type: mRNA  
A; Residues: 1-507 <RES>  
A; Cross-references: GB:D13566; NID:9286209; PIDN:BAAO2761\_1; PID:9286210  
A; Experimental source: PC12 and erythroid cells  
A; Note: sequence extracted from NCBI backbone (NCBIN:132811, NCBIPI:132813)  
C; Superfamily: erythropoietin receptor; cytokine receptor homology  
C; Keywords: cytokine receptor; glycoprotein; transmembrane protein  
F; 1-24/Domain: signal #status predicted <STG>  
F; 25-507/Product: erythropoietin receptor #status predicted <MAT>  
F; 25-249/Domain: extracellular #status predicted <EXT>  
F; 250-271/Domain: transmembrane #status predicted <TM>  
F; 272-507/Domain: intracellular #status predicted <INT>  
F; 75/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 79.9%; Score 877.5; DB 1; Length 507;  
Best Local Similarity 78.2%; Pred. No. 2.9e-77;  
Matches 165; Conservative 23; Mismatches 22; Indels 1; Gaps 1;  
Matches 198; Conservative 11; Mismatches 2; Indels 0; Gaps 0;

Qy 1 KFESKAALLAARGPPEELCFTTERLEDLVCFFERASAGVPGNFSSFOLEDEPWKLICRL 60  
Db 34 KFESKAALLAARGPPEELCFTTERLEDLVCFFERASAGVPGNFSSFOLEDEPWKLICRL 92  
Qy 61 HQAPTAGAIRFWCSLPTADTSFVPLRLLTAASGPRFHRYHINENVVLIDAPVGIV 120  
Db 93 HQAPTAGAVFWCSLPTADTSFVPLRLLTAASGPRFHRYHINENVVLIDAPVGIV 152  
Qy 121 RLADESGIVWIRMLPPPTPMWSHIRFIELDISAGNGAGSVQRVELLEGRTCEVLNSLRG 180  
Db 153 RRAGEGSWVLRNLPPGAPMTHIRYEVDVSGRNRAAGTQRVLEGRTECVLSNLRG 212  
Qy 181 TRITIAYVARMAEPSFGFWSAWSEPVSLT 211  
Db 213 TRYFAVRMAMAEPSFGFWSAWSEPVSLT 243

RESULT 4  
A3385 erythropoietin receptor precursor, membrane-bound form - mouse

C Species: *Mus musculus* (house mouse)  
 C Date: 28-Sep-1990 #sequence\_change 05-Apr-1995 #text\_change 22-Jun-1999  
 C Accession: A41686; A32385; S13249  
 R Rhino, M.; Tojo, A.; Misawa, Y.; Morii, H.; Takaku, F.; Shibuya, M.  
 Mol. Cell. Biol. 11, 5527-5533, 1991  
 A Title: Unregulated expression of the erythropoietin receptor gene caused by insertion  
 A Reference number: A41686; MUID:92017832  
 A Accession: A41686  
 A Residues: 1-507 <HIN>  
 A Molecule type: mRNA  
 A Residues: 1-507 <HIN>  
 A Cross-references: GRB559388; NID:g237036; PIDN:AAT20029.1; PID:g237037  
 A Experimental source: murine erythroleukemia (MEL) cell line F5-5  
 R D'Andrea, A.D.; Lodish, H.F.; Wong, G.G.  
 Cell 57, 277-285, 1989  
 A Title: Expression cloning of the murine erythropoietin receptor.  
 A Reference number: A32385; MUID:89195238  
 A Accession: A32385  
 A Molecule type: mRNA  
 A Residues: 1-507 <DAK>  
 A Cross-references: GRB55943; NID:g193090; PIDN:AA337571.1; PID:g309219  
 A Experimental source: murine erythroleukemia (MEL) cells, subclone 745  
 R Kuramochi, S.; Ikeda, Y.; Todokoro, K.  
 J. Mol. Biol. 216, 565-575, 1990  
 A Title: Characterization of murine erythropoietin receptor genes.  
 A Reference number: S13249; MUID:91080149  
 A Accession: S13249  
 A Molecule type: DNA; mRNA  
 A Residues: 1-507 <KUP>  
 A Experimental source: murine erythroleukemia K-1 cells  
 C Genetics:  
 C Introns: 39/1; 83/2; 142/1; 194/3; 246/1; 275/2; 304/3  
 C Superfamily: erythropoietin receptor; cytokine receptor homology  
 C Keywords: alternative splicing; cytokine receptor; glycoprotein; transmembrane protein  
 F 1-24/Domain: signal sequence #status predicted <SIG>  
 F 25-507/Product: erythropoietin receptor #status predicted <RAT>  
 F 25-249/Domain: extracellular #status predicted <EXT>  
 F 250-238/Domain: cytokine receptor homology <CRS>  
 F 250-271/Domain: transmembrane #status predicted <TM>  
 F 272-507/Domain: intracellular #status predicted <INT>  
 F 505-626/Domain: disulfide bonds: #status predicted <DIS>  
 F 75/Binding site: carbohydrate (Asn) (covalent) #status predicted  
 Query Match 79.2%; Score 869.5; DB 1; Length 507;  
 Best Local Similarity 77.7%; Pred. No. 1.7e-76; Mismatches 22; Indels 1; Gaps 1;  
 Matches 164; Conservative 22; Mismatches 24; Indels 1; Gaps 1;  
 Result 5  
 S55317 hematopoietic growth factor receptor precursor - mouse  
 C;Species: *Mus musculus* (house mouse)  
 C;Date: 13-Jan-1995 #sequence\_revision 13-Jan-1995 #text\_change 05-Nov-1999  
 C Accession: S33317; S33316  
 R Skoda, R.C.; Seldin, D.C.; Chiang, M.K.; Peichl, C.L.; Vogt, T.F.; Leder, P.  
 EMBO J. 12, 2645-2653, 1993  
 A Title: Murine c-mpl: a member of the hematopoietic growth factor receptor superfamily  
 A;Reference number: S35316; MUID:93327753  
 A Accession: S35316  
 A Residues: 1-625 <SKO>  
 A Cross-references: EMBL:Z22649; NID:9394725; PIDN:CAA80365.1; PID:9394726  
 A Accession: S35316  
 A Molecule type: DNA  
 A Residues: 1-70 <SKW>  
 A Cross-references: EMBL:Z22657  
 A;Cross-references: EMBL:Z22657  
 C;Keywords: alternative splicing; cytokine receptor; glycoprotein; transmembrane protein  
 F 1-25/Domain: signal sequence #status predicted <SIG>  
 F 26-625/Product: hematopoietic growth factor receptor #status predicted <MAT>  
 F 26-482/Domain: extracellular #status predicted <EXT>  
 F 261-285/Region: WGWS motif  
 F 465-489/Region: WSXWS motif  
 F 483-504/Domain: transmembrane #status predicted <TM>  
 F 505-625/Domain: intracellular #status predicted <INT>  
 F 113,117,178,349/Binding site: carbohydrate (Asn) (covalent) #status predicted  
 Query Match 15.6%; Score 171; DB 2; Length 625;  
 Best Local Similarity 24.6%; Pred. No. 1.6e-08; Mismatches 62; Indels 52; Gaps 8;  
 Matches 33; Conservative 33; Mismatches 105; Indels 52; Gaps 8;  
 Result 6  
 QY 4 SKAALLAARGPEELICFTERLEDLVCFFEEASAGVGFGNFSSFQLEDEPKWLCKRLQA 63  
 Db 25 SQDVFLLAIGTEPLNCFSQTQFEDLCFWDEEEA--PSGTQKLYAVRGEKFRACPLSQ 82  
 QY 64 PTARGAIIFWCISLPTAD-TSSVPLERLTAAAS-GAPFRHRVHINENVLLDAPVGLAR 121  
 Db 83 SVPTFGTGYKVCOPAQDEPLRFLPHWKVKNVLSNQTLIQLRVLFDVSGLPPAPPRVKAR 142  
 QY 122 LADBSGHVIRW-LPPPTPMHSIRELDI---SAGNGAGSVQRVLEERT---- 170  
 Db 143 GSQPGEIQHWRAPPER--ISDFLRHILRYGPTDSNATAVSV--IQLSLSTCCTPLW 198  
 QY 171 -----ECVLNSLRGRTRTIVARMAEPPSG 197  
 Db 199 MPNPVPVNDQPPCVHPTASQPHGAPAPFLTVKGGSCLVYGLQASKSYWQLRSQPDGVSLR 258  
 QY 198 GNSAWSPRVSLSL 209  
 Db 259 GSNGPWSFPVIV 270  
 Query Match 14.9%; Score 164; DB 2; Length 626;  
 Best Local Similarity 23.5%; Pred. No. 7.6e-08; Mismatches 61; Indels 60; Gaps 8;  
 Matches 61; Conservative 34; Mismatches 105; Indels 60; Gaps 8;  
 Result 7  
 S37622 proto-oncogene - mouse  
 C;Species: *Mus musculus* (house mouse)  
 C;Date: 13-Jan-1995 #sequence\_revision 13-Jan-1995 #text\_change 05-Nov-1999  
 C Accession: S37622  
 R Vigon, I.; Florido, C.; Pichelson, S.; Guenet, J. L.; Mattei, M. G.; Souyri, M.; Cos  
 Oncogene 8, 2607-2615, 1993  
 A Title: Characterization of the murine Mpl proto-oncogene, a member of the hematopoietic  
 A;Reference number: S37622; MUID:93390934  
 A Accession: S37622  
 A;Status: preliminary  
 A Molecule type: mRNA  
 A Residues: 1-626 <VIG>  
 A Cross-references: EMBL:X73677; NID:9404318; PIDN:CAA52031.1; PID:9404319  
 Query Match 14.9%; Score 164; DB 2; Length 626;  
 Best Local Similarity 23.5%; Pred. No. 7.6e-08; Mismatches 61; Indels 60; Gaps 8;  
 Matches 61; Conservative 34; Mismatches 105; Indels 60; Gaps 8;  
 Result 8  
 QY 4 SKAALLAARGPEELICFTERLEDLVCFFEEASAGVGFGNFSSFQLEDEPKWLCKRLQA 63  
 Db 18 SQDVFLLAIGTEPLNCFSQTQFEDLCFWDEEEA--PSGTQKLYAVRGEKFRACPLSQ 75  
 QY 64 PTARGAIRFWCSLPT-ADTSFVPLERLTAAAS-GAPFRHRVHINENVLLDAPVGLAR 121

— 1 —

C; **Keywords:** transmembrane protein

Db 76 SVPTFGTRWVQCOPAQOVERLRFPLHLMWKVNSLNQTLIQRVLVEFDVSGQLPAPRVTIKR 1355  
QY 122 LADESGHVWR-LPPETPMTHIRFELDI---SAGNAGS VORVELLEGRT----- 170

Query Match 13.3%; Score 146; DB 2; Length 635;

Matches	59;	Conservative	35;	Mismatches	107;	Indels	58;	Gaps	9;
QY	4	SKAALLAARGPEBLCLCTERLEDLVCFFEEAASAGVGPCONFSFSFQLEDEPWKLQLRLHDA							63
Db	25	SQDVSLLASDSEPLKCFSRTEEDLTFCWDEEEAAPSGTVVOLLYAYPRE							KP-RACPLSSQ 82
QY	64	PTARGATRFWCSLP-TADTSSFVPLELRI-TAASGAAPRHVHINEVNLIDAPVGLVAR							121
Db	83	SMHFHGFTRYVCCPDPQEVRVLFLPHLWVKNVFLNQTRQVRVLFDSVGLPAPPSIKAM							142

**RESULT** 7  
**B45266** **MPL-K** protein precursor - human (fragment)  
**C\_Species:** Homo sapiens (man)  
**C\_IDate:** 27-Jun-1994 #sequence\_revision 27-Jun-1994 #text\_change 05-Nov-1995  
**C\_Accession:** B45266  
**R\_Vigon, I.; Mormon, J.P.; Cocault, L.; Mitjavila, M.T.; Tambourin, P.; Giaccone, G.; Prockop, D.J.**  
**Proc. Natl. Acad. Sci. U.S.A.** 89, 5640-5644, 1992  
**A\_Title:** Molecular cloning and characterization of MPL, the human homolog of the murine thrombopoietin receptor.

QY 143 GGSOPGELOQISWBEPAPE- -ISDFLRVLEYRGPRDKNSNGPTVIOLATECCPALQR P 200  
 Db 165.-----LLEGTECVLSNLRRTTRITAVR R 190  
 QY 201 HSASALDQSPCAOPTMPWQDGPKQTSPSREASALTAEGGSC-CLISGLOPQNSWQLR S 259  
 QY 191 MAEPSFGFGFWASWSEPVLP 209

A; Accession: B45266  
A; Status: preliminary  
A; Molecule type: mRNA  
A; Residues: 1-579 <VTP>  
A; Cross-references: GB:MR0103; NID:q184262; PIDN:AAA69972\_1; PID:q184263

RESULT  
I45971  
prolactin receptor - bovine  
C. bovinus, Bos primigenius taurinus (cattle)

Query Match 13.3%; Score 146; DB 2; Length 579;  
 Best Local Similarity 22.8%; Pred. No. 3.9e-06;  
 Matches 59; Conservative 35; Mismatches 107; Indels 58; Caps 9

C;Date: 10-Aug-1996 #sequence;Revision 10-Aug-1996 #textChange 28-Jul-2000  
C;Accession: IAP571  
R;Scott, P.; Kessler, M.A.; Schuler, L.A.  
Mol. Cell. Endocrinol. 89, 47-58, 1992  
A;Title: Molecular cloning of the bovine prolactin receptor and distribution of prolactin

Db 25 SODVSSLASDSEPLRKCFSRTRFEDLTCFWIDEEAAGSGTYQOLYAYPRE-KP-RACPLLSQ 82  
QY 64 PTARGAIRREWCSLP-TADTSSFVPIELRL-TAASGAPRFRHVRVHNNEVVLIDAPVSLVR 121

A;Accession: IM5971  
A;Status: Preliminary; translated from GB/EMBL/DDBJ  
A;Molecule type: mRNA  
A;Residues: 1-581 <5CO>

Db 83 SMHFGTVWQQLPQQEEVRLFSPHLWKNVLNQTRIQRVLFDVSGLPPSIIKAM 142  
Qy 122 LADESGHVVIRW-LPPPEPMTHIREEL-----DISANGAGSVYRVE----- 164

C;Genetics:  
A;Gene: PRLR  
C;Superfamily: cytokine receptor homology  
F;36-221/Domain: cytokine receptor homology <CRS>

QY 165 -----LLEGRTECVLSNLGRTRITIAVR 19CC  
Dh 2011 HS-AD-OC-SC-AD-PM-OC-PC-DS-PF-FAS-IT-AFC-GS-C-TR-CON-SW-OC-OC

Query Match	10.7%	Score 118;	DB 2;	Length 581;
Best Local Similarity	21.9%	Pred. No.	0.002;	Missmatch
Match A8: Conservatice	40.	101.	Indices	30.
			Gans	10.

Qy 191 MAEPSFGGFWSAWSEPVSL 209  
Db 260 PDGISLGGSGWSLPVT 278

A45266 MPL-P protein precursor - human

Db 75 CPDYKIGGPNSCYFSKKHTSIWKMVITVNAINOMGIISSDPY--VHVTIVPEPPA 131

C;Species: homo sapiens (man)  
C;Date: 27-Jun-1994 #sequence\_revision 27-Jun-1994 #text\_change 05-Nov-1994  
C;Accession: A45266

QY 11/GLVARKL---ADUSGHHVIRKULPPPEIMISH---IKFELDUSAGNAGSVORLEGIT  
 1/0  
 11/-----I-----I-----I-----I-----I-----I-----I-----I-----I-----  
 132 NLTELIKHPEDRKPKYLWIKWSPPMTWVKSGWFIIQYEIRKPEKKATDWETHETFTKQ-T 189  
 DB

Proc. Natl. Acad. Sci. U.S.A. 89, 5640-5644, 1992.  
Article: Molecular cloning and characterization of MPL, the human homolog  
of mouse number 4 gene, were done.

A1: Status: preliminary  
A1: Molecule type: mRNA  
A1: Residues: 1-635 <VIG>  
A1: Cross-references: GB:M90102; NID:9184260; PMID:AAA69971\_1; PID:gi184261

RESULT 10  
B45268 interleukin-9 receptor precursor - human

C;Species: Homo sapiens (man)  
C;Accession: Date: 27-Jun-1994 #sequence\_revision 27-Jun-1994 #text\_change 05-Nov-1999  
C;Accession: Ba5268  
R;Reinhard, J.C.; Druet, C.; Kermouni, A.; Housiau, F.; Uttenhove, C.; Van Roost, E.; V;  
Proc. Natl. Acad. Sci. U.S.A., 89, 5690-5694, 1992  
A;Title: Expression cloning of the murine and human interleukin 9 receptor cDNAs.  
A;Reference number: A45268; MUID:93302307  
A;Accession: Ba5268  
A;Status: preliminary  
A;Molecule type: mRNA  
A;Cross-references: 1-522 <GEN>  
A;Keywords: prelimary  
C;Keywords: glycoprotein; receptor; T-cell proliferation; transmembrane protein  
C;Keywords: mRNA  
Query Match 10.1%; Score 111; DB 2; Length 522;  
Best Local Similarity 23.8%; Pred. No. 0.0086; Mismatches 53; Indels 46; Gaps 11;  
Matches 53; Conservative 28; Mismatches 97; Indels 46; Gaps 11;  
QY 12 RGPEE--LLGPFEREDLVFFEEASAGVGPGNFSFSFQLEDEPWKLRLHQATARGA 69  
Db 47 QGPRSRFTFTQLTNNLIRIDCHW-SAPELGGG-----SSPWLFTSNOAPGTHK 94  
QY 70 IRFWQSLPTADTSVFPLERLTAASG-AAPRHRYHINNEY-----VLDAP 115  
Db 95 ---CLLRGSECTVVLPPEAVLVPSPDNFTTFHHCMSGRGEQVSLVDPPEYLRRHHKLDP 150  
Qy 116 VGLVARLADSGHGVWIRW-LPPPEPMTHSIRFIELDISAGNGA-GSVQRVLELEGRTCV 173  
Db 151 SDIOPNIS-SGHCILTWSPALPMLTISYELAFKKQEEAWEQDAQHDHIVGVTLI 208  
QY 174 LSNL-----RGRITTAVARR--MAEPSFGGWSANSPV 207  
Db 209 LEAFELDPGFIHEARLURVQMATLEDVVEEERYTGOWSEWSQPV 252  
RESULT 11  
S33339  
Somatotropin receptor - sheep  
N;Alternate names: growth hormone receptor  
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)  
C;Date: 08-Dec-1993 #sequence\_revision 01-Dec-1995 #text\_change 08-Dec-2000  
C;Accession: S33339  
R;Adams, T.E.; Baker, L.; Fiddes, R.J.; Brandon, M.R.  
Mol. Cell. Endocrinol. 73, 135-145, 1990  
A;Title: The sheep growth hormone receptor: molecular cloning and ontogeny of mRNA expression  
A;Reference number: S33339; MUID:91099608  
A;Status: preliminary  
A;Molecule type: mRNA  
A;Cross-references: EMBL:M82912; NID:9165888; PIDN:AAA73171.1; PID:9165889  
C;Superfamily: fibronectin type III repeat homology  
C;Keywords: alternative splicing; receptor; sex-linked inheritance; transmembrane protein  
F;23-109/Product: somatotropin receptor, short form #status predicted <SIG>  
F;23-109/Product: somatotropin receptor, short form #status predicted <SHO>  
Query Match 9.7%; Score 107; DB 2; Length 608;  
Best Local Similarity 26.7%; Pred. No. 0.025; Mismatches 54; Indels 32; Gaps 9;  
Matches 54; Conservative 26; Mismatches 90; Indels 32; Gaps 9;  
QY 14 PIELLCITEREDLVFFEEASAGVGPGNFSFSFOL---EDEPWKLRLHQATARG 68  
Db 29 POISKCRSPELETFSCTWID----GKVTTGTTGKLYMRSDEDWKEC----PDYIT 77  
QY 69 ATRFWCILPTADTSVFPLERLTAASGAPRHRYHINNEYVLLDAPVGLVRLADES-- 126  
Db 78 AGENSCYFTNTSYTINIPYCYVKL-ANKDEVDEKCFCSYDEIVLPDPFVHLNWLLNSQT 136  
QY 127 --GHVVTRWLPPETPMTS--HIREFIELDISAGNGAGSVQRVLELEGRTCV--LSNLR 178  
Db 137 GHGDDIQVRWDPPADVQKGWITLEVLEYQKVNET---KWKELERPLSIVVPLYSLK 192  
QY 179 GRTTRITTAVARRMAEPSFGGF 199  
Db 193 MGRDYEVIRVRSQRTSEKFGEF 214  
RESULT 13  
A30304  
Prolactin receptor 2 precursor - rabbit  
N;Alternate names: prolactin receptor, mammary gland  
C;Species: Oryctolagus cuniculus (domestic rabbit)  
C;Date: 07-Sep-1990 #sequence\_revision 07-Sep-1990 #text\_change 28-Jul-2000  
C;Accession: A30304; A60380  
R;Ederry, M.; Jouicoeur, C.; Levi-Merriegue, C.; Dusantier-Fourt, I.; Petridou, B.; Bout  
Proc. Natl. Acad. Sci. U.S.A. 86, 2112-2116, 1989  
A;Title: Identification and sequence analysis of a second form of prolactin receptor  
A;Reference number: A30304; MUID:89184578  
A;Accession: A30304  
A;Molecule type: mRNA  
A;Residues: 1-616 <EDES>  
A;Cross-references: GB:J04510; NID:9165669; PIDN:AAA31457.1; PID:9165670  
R;Watters, M.J.; Spencer, S.A.; Hamlin, G.; Henzel, W.J.; Wood, W.I.  
Int. J. Biochem. 22, 1089-1095, 1990  
A;Title: Purification and partial sequence of the rabbit mammary gland prolactin receptor  
A;Reference number: A60380; MUID:9146782  
RESULT 12

A;Accession: A60380  
 A;Molecule type: protein  
 A;Residues: 41-58, 'X', 60-66, 90-93, 'X', 95-96, 'X', 98-103, 'X', 105, 'N', 108-150-164, 'X', 167  
 A;Note: the amino end of the mature protein was blocked  
 C;Superfamily: cytokine receptor homology  
 C;Keywords: blocked amino end; glycoprotein; transmembrane protein  
 F;1-24/Domain: signal sequence #status predicted <SIG>  
 F;19-67/Domain: prolactin receptor 2 #status predicted <MAT>  
 F;274-297/Domain: prolactin receptor homology <CRS>  
 F;36-221/Domain: cytokine receptor homology <CRS>  
 F;235-258/Domain: transmembrane #status predicted <TM>  
 F;59,104,132,347,389,411/Binding site: carbohydrate (Asn) (covalent) #status predicted

## RESULT 14

S33608 somatotropin-binding protein, high molecular weight, precursor - mouse

Qy 5 KAALLAARGPPEELICFTEFLERDILVCFEEASAGVGVRGPNFSFSQLEDEPWKLICRHLQAP 64

Db 30 KPTIKCRSPER-----EPFTCWWRPGALGGL-PNTVITYKHE---TITHECP 76

Qy 65 TARGAIRFWCSLPTADSSFVPLERLTA-----GAPRFRVHVINENVLLDAVGL 118

Db 77 DYRTGGPNSCYFSKKHTSIWTTIYTIVNATNGMSVSDPR----VDVTYVOPDPVNL 133

Qy 119 --VARLADESHHWVIRWLPPETPMWS--HIRFELDISAGNGAGSVQRVELLEGRTEC 172

Db 134 TLEVKKHPEDPKRPLWVKWLPLPTLVDRSGWLTLQEYRLRKPAA--EWETHFAGQOTOF 191

Qy 173 VLSNLRGRTITIAYVARMARMAEPSFGGWSAWBEPVSL 209

Db 192 KILSILVPGQKYLVQVRK---PDH-GFWSWSPESSI 224

A;Residues: 1-677 &lt;SM&gt;

A;Cross-references: EMBL:M33324; NID:9193508; PIDN:AAA37690.1; PID:9309253

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-677 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

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A;Experimental source: liver

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A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

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A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

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A;Residues: 1-324 &lt;SM&gt;

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A;Residues: 1-324 &lt;SM&gt;

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A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

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A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

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A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

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A;Residues: 1-324 &lt;SM&gt;

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A;Experimental source: liver

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A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

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A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

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A;Residues: 1-324 &lt;SM&gt;

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A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1-324 &lt;SM&gt;

A;Cross-references: EMBL:M31680; NID:9193506; PIDN:AAA37689.1; PID:9309252

A;Experimental source: liver

A;Accession: S33607

A;Molecule type: mRNA

A;Residues: 1

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